the stomach and allied organs, or to the constitutional derangement and exhaustion resulting from the general dyscrasia. The chronic cough of which the man had for some years been the subject presented nothing unusual in its character, was not a prominent symptom during the time that he was in the hospital, and was not associated with any physical signs leading to the suspicion that the lungs were the seat of the very remarkable kind and amount of disease discovered after death. Especially is it to be observed, that there was no marked dyspnœa, and no true febrile disturbance.

W. H., a gardener, sixty-eight years of age, was admitted into hospital on June 16th, 1859. He stated that he had been ill six months; that previously he had had good health, with the exception of a chronic cough that he had had for some years. He complained chiefly of epigastric pain and distension, increased by taking food. For some time his appetite had been poor, and he had lost flesh rapidly. Only within the last day or two had there been any vomiting. The urine was abundant, and free from albumen; bowels regular; no febrile disturbance. His aspect was anæmic and somewhat cachectic; the tongue red and furred in patches. On examining the abdomen, several tumours were observed in the abdominal integuments, one immediately above the umbilicus, which, he affirmed, had been there for many years, and which appeared to be attached to the sheath of the rectus muscle. He emaciated rapidly after his admission, having frequent vomiting and much epigastric pain, and subsequently jaundice.

The *post mortem* examination was made by Dr. Bristowe, and the following is his detailed description of the appearances presented by the lungs. The body was extremely emaciated and deeply jaundiced. There was a milk-patch on the front of the heart; otherwise the pericardium was healthy. The heart was healthy, but flabby. The valves were competent; but there was a little earthy deposit in the right angle of the mitral valve, and a little along the attached margin of the aortic, but sufficient, in connexion with one curtain, to render it somewhat rigid generally. The pleuræ were free from adhesions, and their parietal portions were generally healthy; the diaphragmatic surface of each was studded here and there with projecting lenticular patches of white cancer from a quarter of an inch in diameter downwards; and a group of similar formations, in an area equal to that of a five-shilling-piece, was seated over the central portion of the left seventh rib, which in this situation, and for about an inch of its length, was destroyed by cancerous infiltration. The lungs were somewhat large and heavy, and presented a very remarkable appearance. The general surface was congested, but thinly covered by what looked at first sight like a leprous eruption. This consisted of flat whitish circular patches, from half an inch in diameter downwards, which had coalesced in many places, and formed sinuous patches or bands of various extent. The patches were pretty equally diffused over the entire surface of both lungs, and were so flat and little elevated as scarcely to be perceptible to the touch, or even the sight, except by their whiteness and opacity. It frequently seemed, too, that the edges were a little better defined than the central portions. In a very few instances, the central portion of a patch was elevated into a hemispherical tubercle. On cutting into the lungs, they were found generally but sparely crepitant; but, on close examination, they were clearly ascertained to be studded rather thickly with cancerous material, which, however, was variously and somewhat peculiarly arranged. 1. In many parts, but by no means uniformly so, it existed in the form of scirrhous infiltration running along the bronchial tubes and vessels of the lung, surrounding them, apparently, in the first instance; then incorporating their parietes; and finally encroaching on and diminishing their calibre, though in no case distinctly obliterating them. The larger trunks were generally unaffected, or affected only in an early stage; the tertiary and subsequent divisions were those most obviously diseased. Constrictions arising in the manner indicated were discovered in both arteries and veins, but no nodulated or papillary growths into their channels. In those tubes in which the disease was most marked, *the mucous membrane was opaque, thick, and wrinkled.* 2. Numerous very distinct but thin bands (from half a line in thickness downwards) of scirrhus were found intersecting the lung-tissue in various directions. By tracing and examining them, it was rendered obvious that they were the result of cancerous growth along the septa separating the lobules from one another; and that they were, therefore, of the same nature as, and had originated in similar tissues to, the patches upon the surface of the lung. Besides the above, there were numerous spots, from the size of a lobule downwards, in which the tissue of the lung was more or less solid, and infiltrated with malignant growth. But it seemed clear that all these were secondary to the formations previously described, and due, as it were, to their outgrowth into neighbouring tissues. Many of them were subjacent to the superficial patches, and had obviously sprung from them. The relations of those seated in the substance of the lung were necessarily less distinct; but there was sufficient reason to regard them as having a similar dependence on more central scirrhous tracts. A few of the bronchial glands were the seat of scirrhous infiltration. There was extensive ulcerated scirrhus of the stomach, with peritoneal cancer extending along the capsule of Glisson into the liver, and causing obstruction of the bile-ducts; but all other organs, as well thoracic as abdominal, were healthy.

Although, as has been stated, cancer affecting the bronchi, either primarily or independently of other parts of the thoracic organs, is, to say the least, extremely rare, if it ever occurs, cancerous vegetations from the inner surface or the tubes occur sufficiently often to give special aspects to the case, and sometimes to facilitate the diagnosis. In a case related by Dr. Peacock, considerable portions of cancerous matter, taking the form of bronchial casts, were from time to time expectorated; and in other instances expectorated matters have shown evidence of the cancerous nature of the disease. But the amount and character of expectorated matters vary greatly in different cases. Mostly, the expectoration is simply thin frothy mucus. Viscid, glairy, red-currant jelly-like matter is by no means so common or diagnostic a sign as has been supposed. The sputa not unfrequently are muco-purulent, but never, I believe, of the peculiar nummular character frequently seen in phthisis. Microscopic examination would probably, in many cases, give direct evidence of the cancerous nature of the disease.

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## CASES OF LONG-CONTINUED ABSTINENCE FROM FOOD.

By HENRY BARBER, M.D., Ulverston.

MANY conflicting opinions are held upon the possibility of the human subject abstaining from food for any lengthened period; and evidence of a positive nature is very much needed to establish the claims of genuine fasting cases.

Hufeland describes the case of a merchant who committed suicide by starvation, in consequence of having suffered from some serious losses. This unfortunate individual was found, after an abstinence of eighteen days, in a grave which he had digged for himself in a wood. He still breathed, but expired immediately after a little soup had been forced down his throat. A diary was found upon him, in which he had daily recorded in pencil all his sensations, from which it is evident he suffered greatly from exposure to cold and mental disquietude, as well as from the pangs of hunger.

Under more favourable circumstances, where external warmth and perfect repose of body and mind can be secured, or in such cases as lethargy or certain conditions of hysteria, where animation seems all but suspended, it is not difficult to conceive that the time may be greatly extended beyond that which sufficed to destroy the poor suicide just referred to.

The two following cases have come under my observation, and are introduced as concisely as possible, but with a careful attention to essential details. The first occurred about ten years ago.

*Hysterical Vomiting and Abstinence.*—M. B., aged 16, an intelligent and delicately constructed, but otherwise healthy girl, was seized with violent bleeding of the nose, and so weakened thereby as to be compelled to keep her bed. Shortly afterwards she began to vomit every description of food offered to her—solids at first, and then fluids. The rapidity with which everything was rejected—even cold water—made it necessary for her to have a basin in the left hand while she was drinking from a glass held in the right. A lump of ice was often kept in the mouth to relieve thirst; but if the water from it were swallowed, it was immediately brought up. Every remedy that could be devised was tried, without effect; and for a few weeks the patient was supported by nutrient enemata, until the bowels would not retain the smallest quantity, so that they had to be discontinued. The poor girl lay for eleven months in this condition, suffering no pain whatever beyond the pangs of hunger and thirst, and eventually died from sheer inanition. Her body was wasted to such a degree that she resembled a living skeleton; and her bowels were acted upon very slightly once in about eight weeks by means of hot fomentations over the abdomen. A *post mortem* examination was not permitted; but there was no evidence of organic disease of the stomach, the vomited matter never being anything more than the fluid taken. No tumour could be detected externally, and there was no pain anywhere. In this case I can rely fully upon the statements of the parents and friends, that whatever was administered was rejected in every instance in the same way as when I was an eye-witness. Beyond rubbing with cod-liver oil occasionally, nothing could be done to keep life going, but draughts of cold water or a lump of ice

given when asked for. She was sponged with tepid water at intervals; and although she occupied the supine position for so long a period, there were no bed-sores at the last.

*Case of Lethargy and Abstinence.*—Eleanor Addison, aged 11, is the daughter of a carpenter residing at "The Hill", Millom. I visited the child, at the request of her uncle, first on the 10th March, 1869, and saw her a few times in consultation with Dr. Robinson of this town. Her case had attracted much attention; and, being noticed in the local papers, the paragraph was copied into many other journals until it acquired great notoriety as "the sleeping girl of Ulverston." The history of the case, as obtained from the mother, was obscure; all she seemed to know was, that the child had something like croup and a "low fever" during the spring and summer of 1868, for which she was attended by Dr. Astles, at that time residing at Millom, at whose recommendation she was removed to Ulverston for change of air on October 28th, 1868. At this time she was very weak, quite conscious, and able to speak. A fortnight after her arrival in Ulverston she ceased to take food entirely, in consequence of a state of insensibility following convulsions, in which state of "trance", as it was called, she had remained, fasting, for fourteen weeks. She then awoke, talked, and had some wine and cod-liver oil, but no food proper. This lasted one month; and when she "came round" she stated to her astonished relatives that she had been in heaven, and had angels about her (her little brother among them), and she was so happy in their company that she desired to return to them. I made the following notes of her appearance and condition after my attendance upon her.

"The girl is lying as if asleep, but so very quietly that her breathing is scarcely perceptible. The pulse at the wrist is very feeble, almost absent, but distinct enough at the temples. The stethoscope, applied over the cardiac region, reveals only one slight regular sound; the second seems lost, just as it sometimes is in severe cases of typhus fever, with great debility. The extremities are cold, and the skin in every part dry and harsh. The limbs are wasted, the abdomen sunken, the ribs and bones of the pelvis very prominent; and, with the exception of the face, the whole body is emaciated, apparently to the last degree. The face appears to have the ruddy hue of health, and there is no sensation anywhere but in the eyes, which are closed. On touching the eyelashes, the eyelid quivers very little, as may be seen in the case of a sleeping infant. The pupils cannot be perceived, as the eyes are turned up towards the roofs of the orbits. The countenance wears a happy ecstatic expression, ineffable pleasure being firmly depicted upon the features, as if they were moulded into that form. Tickling, pinching, or tapping with the finger, neither excites reflex action in any part of the body, nor disturbs the serenity of the face. There has been no action either by the skin, kidneys, or bowels, for many weeks. The breath occasionally is very peculiarly offensive. The patient lies motionless, but there is no catalepsy. The back part and sides of the head and face are cold; but the upper portion, ascribed by phrenologists to veneration, hope, spirituality, sublimity, and ideality, is hot, and unmistakably supplied more largely with blood than any other part of the body. This fact, taken into consideration with the extraordinary visions related by the child during her temporary recovery, is a remarkable psychological phenomenon. The only sign of consciousness is the slight inclination forward of the head in answer to questions about angels, heaven, or her present happy state of mind. She does not make the least sign when interrogated upon any other subject. As the patient cannot swallow, the lips are moistened occasionally with water, or weak wine-and-water."

I came to the conclusion that this was a clear illustration of the lethargic state sometimes induced by the non-elimination of urea. The peculiar dry, harsh state of the skin, and the history of the case furnished by the friends, seemed to point to suppressed scarlatina and desquamative nephritis having occurred previously to the child's removal from home. I gave this opinion to Dr. Robinson, and subsequently to Dr. Astles, when we all met to consider the case, but Dr. Astles attributed all the symptoms to tuberculous deposit in the brain. The matter was referred to the Local Branch of the British Medical Association at Carlisle afterwards, by Dr. Robinson, but I was prevented from attending the meeting, which, I learned, leaned to the opinion of Dr. Astles.

The mother objected to nutritive enemata, so I suggested inunction of the whole body daily with warm olive oil, and hot applications (bottles and flannels) to the feet and legs and to the nape of the neck, for the purpose of promoting the action of the skin, and nourishing the body by absorption, and deriving the blood from the head. This treatment did not restore consciousness; but the hot applications to the feet, etc., had the effect of diminishing the heat in the coronal region, and, oddly enough, of removing the strong spiritual impressions previously existing; consequently, the serene expression of the face was changed to one of sadness and despondency, and the angles of the mouth were drawn as if the patient were suffering acute anguish of mind. This feeling at times increased until, as on one occasion when I was present, tears ran down the face, and faint sounds of suppressed sobbing showed the alteration in the mental vision, and the removal of the "angels ever bright and fair" from the world in which the poor creature existed. She no longer replied to any questions; and, as might be expected, this unpleasant change greatly disappointed the relatives and the numbers of persons of all classes who constantly visited her. Hundreds of people had crowded to see the child from the first, as many as half-a-dozen being admitted to the room at a time; and as every one had long concluded she must die, this strange treatment of mine was looked upon as a cruel and unwarrantable interference. The possibility of saving the life of the girl was never thought of; the only idea with most of the visitors being that she ought to be allowed to die happily. Some intelligent persons—to their honour be it spoken—insisted that proper measures should be used, and aided greatly by endeavouring to reason with the ignorant. I did not visit the house again; but, under Dr. Robinson's care, the inunction was partially carried out, and at length, after twelve weeks had passed, she awoke one Sunday from this second trance, and asked for porridge, which she ate freely. At this time there was a little action by the kidneys. She recovered gradually her strength, and was removed to her own home June 5th, 1869, where she is at the present time in tolerable health. Thus, without reckoning the interval of one month, this girl was without food for twenty-six weeks, unless a very clever piece of deception has been practised, to accomplish which both the child and her mother must be very much more sophisticated and artful than I gave them credit for.

## AVULSION OF THE ARM AND SCAPULA: RECOVERY.

By THOMAS EVANS JONES, Esq., Llanasa.

On November 1869, Joseph Parry, aged 11, met with an accident at Trelogan Lead Mine. Early that day, when he went to work, he found a piece of loose rope, and threw it over a cog, or rather a hook, which was in motion. His coat and arm became entangled in the rope, and he was dragged between an iron rod and a wooden frame six inches apart. The machine, being worked by steam, could not be stopped immediately; consequently, his right arm with the scapula attached was clearly drawn off. The median and ulnar nerves remained hanging down his side like two white strings. The humerus was fractured in two places—at the middle and at the surgical neck. There was also a wound skin-deep seven inches long in the left groin, which healed by the first intention. He lost some blood, fainted, and fell into a heap of gravel, which filled the wound. When I saw him between 8 and 9 A.M., he was in a state of collapse; his pulse was scarcely perceptible; his feet, hands, and face were cold and livid. Warm bottles were applied to the feet and body, and brandy and water was given every fifteen minutes. It was 3 P.M. before reaction was fairly established. I then cleaned the wound of the stones, removed the median and ulnar nerves, and, after some difficulty, secured the axillary artery, which was surrounded by the brachial plexus. Two other small arteries were also tied. I next removed a piece of the clavicle two inches long to enable me to bring the parts together, which were kept *in situ* by metallic sutures. The wound was dressed every four hours with solution of carbolic acid. A fourth of a grain of opium was given night and morning, and continued for a fortnight. Brandy, beef-tea, and milk were given frequently.

On November 30th, he had passed a restless night, and was sick and feverish; pulse 120, tongue furred. He was ordered to take every third hour a tablespoonful of a mixture containing a drachm of chlorate of potash and half an ounce of liquor ammoniæ acetatis in four ounces of water.

On December 1st, he had had a good night, and was less feverish; pulse 90. He passed no urine since the previous evening, and his bowels were not moved. He was ordered to have a senna draught immediately. Warm fomentations, by means of wet flannels, were applied to the abdomen.

December 2nd.—He had passed a good night, and voided urine freely; pulse 80, tongue clean. The bowels were not moved. He was ordered to have immediately two grains of calomel and a scruple of jalap. In a few hours after taking the powder, the bowels acted.

December 5th.—The wound was looking healthy. Three of the sutures were removed.

December 6th.—The remaining sutures were removed. The wound was dressed with long narrow strips of plaster an inch apart, and solu-